

between the string of the sixth position and the string of the fifth position, an octave and a perfect fourth interval between the string of the fifth position and the string of the fourth position, an octave and a perfect fourth interval between the string of the fourth position and the string of the third position, an octave and a minor sixth interval between the string of the third position and the string of the second position, an octave and a perfect fourth interval between the string of the second position and the string of the first position. - -

Remarks

This application was filed with claims 1-6. Claims 1-6 have been rejected. Claim 1-4 and 6 are original. Claim 5 is amended. Therefore, claims 1-6 are pending in the application. Reconsideration of the application based on the claims as amended and arguments submitted below is respectfully requested (see attached claims 1-6 with 5 being amended).

Claim Rejections – 35 U.S.C. 112

Claim 4 has been rejected under 35 U.S.C. 112, second paragraph, is the invention as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

I believe this claim is not indefinite because it is understood by reviewing the abstract, the specification, or claims of the patent. This invention teaches a tuned string arrangement for a stringed instrument or guitar with the tuned string arrangement utilizing a tuning sequence of 'low E,' 'extra low A,' 'd,' 'high g,' 'low B,' and 'high e.' The standard prior art sequential string size order is altered by placing the sixth string of a conventional guitar string set in the sixth position, placing an extra large selected replacement string that is to be tuned one octave lower than the string it replaces in the fifth position, placing the fourth string of the conventional guitar string set in the fourth position, placing a replacement string slightly smaller than the first string of the conventional guitar string set in the third position, placing the fifth string of the conventional guitar string set in the second position and placing the first string of the conventional guitar string set in the first position.

Double Patenting

Claims 1-6 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6365808 in view of Murrell. The applicant claims the use of a revised string arrangement for a musical instrument utilizing six strings with different diameters placed in specific positions. U.S. Patent No 6365808 also discloses the use of a revised string arrangement for a musical instrument utilizing six strings with different diameters placed in specific positions. U.S. Patent No. 6365808 altered the string order of the conventional guitar. U.S. Patent No. 6365808 does not disclose the use of strings with different diameters placed in specific positions as recited by the applicant.

I believe U.S. Patent No. 6365808 does disclose the use of strings with different diameters placed in specific positions in the second half of Claim 1:

**“the first string placed in the sixth position;
the second string placed in the fifth position;
the fourth string placed in the fourth position;
the third string placed in the third position;**

the fifth string placed in the second position; and
the sixth string placed in the first position.”

It would be obvious to one of ordinary skill in the art at the time the invention was made to modify the device to include the specific string arrangement as disclosed by the applicant in order to achieve a specific tuning arrangement.

I believe the uniqueness is not obvious. No cited references showing a motivation for a ‘skill in the art’ combination or any reference with a ‘means of suggestion’ has been cited for combining the patent and the dictionary to achieve the present invention. “Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in the references themselves or in the knowledge generally available to one of ordinary skill in the art.” MPEP 2143.01 (citing *In re Fine*, 837 F.2d 1071 (Fed.Cir.1988)).

Some time ago I strung a left handed guitar for my then nine year old grandson Kenny. Occasionally I would try playing his guitar upside down –

right handed. Advantages were evident. The large strings were now under the fingers and the small strings under the thumb causing the rhythm accents to be reversed - making off-beat sounds easy to play. There was however a negative aspect to the instrument. The conventional chord shapes now had to be reshaped. In an attempt to do away with the chord shape complication the strings of a conventional right handed guitar were restrung in reverse sequential order with the largest string toward the floor and the smallest string toward the ceiling. However, the potential great sound effects of the instrument were not fully discovered until during further experimentation, the strings of position three and position four were returned to their original conventional placements. Immediately after hearing the revised string arrangement I knew we had an unusual instrument discovery - U.S. Patent No. 6365808.

The original patented guitar U.S. Patent No. 6365808 and the present invention are both played as if some of the strings have not been replaced or relocated from their original positions. They are played with conventional fingering while allowing the players to elicit altered pitch levels from the partially reversed order of the strings and string replacements. With these adjustments made the players produce previously unattainable melodies and

harmonies without learning new chord shapes, fingering, or playing techniques – new sounds without relearning.

Therefore, I respectfully request that the rejection of Claims under 35 U.S.C. 112 be withdrawn.

Claim Rejections – 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gregory. Gregory discloses the use of a musical instrument having a body (1), a neck (2), a bridge (6), a nut (8) and a revised string arrangement for a musical instrument with six strings with six different diameters placed in specific positions (see column 3, lines 60-65).

Gregory does disclose the specific string positions as recited by the applicant. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the string placement as disclosed by Gregory to include the specific string placement as recited by the applicant in order to specifically tune a musical instrument according to a user's desire.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gregory discloses the use of a guitar with specific tunings.

The present invention is most easily understood by figure 3 which can illustrate both visually and aurally the great differences between the intervals of the conventional guitar and the intervals of the present invention. See

attached figure 3. Please play and compare on a piano keyboard the sounds of the open string notes of the conventional guitar with the sounds of the open string notes of the present invention – observing the differences in the range of each guitar and the order the notes are sounded, in block form and when arpeggiated. The contrast of the sounds of the instruments is shocking because of the instruments great differences in pitch levels and intervals between strings.

The present invention's open string range is a minor seventh interval (ten frets) greater than the open string range of the conventional guitar allowing the listener to experience the extra low open 'A' string note and the high open third string 'g' note. These notes are not available on the conventional guitar. Whether played together or in succession the notes of the huge music intervals between adjacent strings result in a stunning sound impact. The large range of the improved guitar enables a single skilled player to simulate two musicians performing a duet – one playing a bass and the other a guitar. The present invention and a conventional guitar can be played simultaneously by two guitarists using the same fingerings, chord shapes and rhythms to produce previously unheard, ear catching sound effects. The guitarist can easily learn "new guitar" sounds by reading music in the usual

manner and listening to the altered pitch levels of the notes of the present invention. The player does not need to learn new techniques, fingering and chord shapes, to produce many novel sounds. The present invention is played exactly like the conventional (classical) guitar. Although the pitch levels of many of the notes of the instrument have been changed, the note names of all the frets and open strings remain unchanged.

The present invention, therefore, is distinguished from the prior art in its particular combination of its structures for the functions specified. Accordingly it is an object of this version of the invention to provide a low-cost, easy-to-manufacture and easy-to-market method of constructing revised position stringed instruments. A further object of this version of the invention is to provide an easy-to-use and versatile method of constructing stringed instruments. A significant object of the invention is to provide a method of constructing stringed instruments that can be adapted to a variety of instruments that employ a sequenced arrangement of tuned strings.

A final but very significant object of the invention is to provide a method of construction of stringed instruments that have varying string size selections and string order placements to yield new and unusual harmonies,

melodies and rhythmic accents while playing the instruments in a conventional manner.

Therefore, I respectfully request that the rejection of Claims under 35 U.S.C. 103 be withdrawn.

Respectfully submitted,



Paul Murrell

Enclosure: Claims 1-6 with 5 amended